

Unit Planning Guide: Grade 3 Unit 3b of 6

Unit Title: Application of Multiplication and Division (Part 2)	Pacing (Duration of Unit): 4 weeks
Grade: 3	Buffer Day(s): 2 days

Desired Results

Transfer Goals

Students will be able to independently use their learning to:

- **Make sense of problems and persevere in solving them.**
- **Reason abstractly and quantitatively.**
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- **Attend to precision.**
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Established Goals (2011 MA Curriculum Frameworks Standards Incorporating the Common Core State Standards)

Standards (Priority Standards in bold):

- **3.MD.C.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.
- **3.MD.C.5a** A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.
- **3.MD.C.5b** A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
- **3.MD.C.6** Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
- **3.MD.C.7** Relate area to the operations of multiplication and addition.
- **3.MD.C.7a** Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
- **3.MD.C.7b** Multiply side lengths to find areas of rectangles with whole-number side lengths in the

WIDA for English Language Learners

Standard 1: ELLs **communicate** for **Social** and **Instructional** purposes within the school setting

Standard 3: ELLs **communicate** information, ideas and concepts necessary for academic success in the content area of **Mathematics**

In the lesson planning stage, teachers will need to differentiate lessons for ELLs. In order to accomplish this they will need: 1.) this curriculum map, 2.) a list of their ELLs and their proficiency levels, and 3.) appropriate language function expectations and scaffolds or supports.

<p>context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.</p> <ul style="list-style-type: none"> • 3.MD.C.7c Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. • 3.MD.C.7d Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems. 	
--	--

Meaning (*Mostly assessed through Performance Tasks/Assessments)

<p>Big Ideas: (Statements and concepts written in teacher friendly language which reflect the important [but not obvious] generalizations we want students to be able to arrive at. These are used by the teacher to focus daily instruction.)</p> <ul style="list-style-type: none"> • The space inside a rectangle or square can be measured in square units. • Multiplication can be used to find the area of a square or rectangle. • Area is additive { 	<p>Essential Questions: (Questions which frame ongoing and important inquiries about the big ideas. They are written for students and used in daily instruction to help engage students in meaningful thinking.)</p> <ul style="list-style-type: none"> • How can multiplication and division be used to solve real world problems? • How can we practice multiplication facts in a meaningful way that can help us remember them? • How can you tell if a problem will need more than one step to solve?
--	---

Acquisition (*Mostly assessed through traditional summative assessments)

Knowledge: Key basic concepts, facts, and key terms (written in phrases) students should be able to recall independently.

Students will know ...

- Vocabulary: unit square, square unit, area, length, width, tiling, attribute, area model, array, plane figure, overlap, gap
- A square with a side length 1 unit is called a “unit square”
- A plane figure that can be covered with n units is said to have an area of n square units
-

Skills: The discrete skills and process students should be able to use independently (Bloom’s Level of Learning should be noted in parentheses.)

Students will be skilled at:

-